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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hans Westmijze

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KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

HUHN, RICHARD A

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,971	Applicant(s) WESTMIJZE ET AL.	
	Examiner RICHARD A. HUHN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Any rejections and/or objections made in the previous Office action and not repeated below are hereby withdrawn.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.
3. The new grounds of rejection set forth below for claim 4 are necessitated by Applicant's amendment filed 5 April 2010. In particular, claim 4 has been amended to change the base claim, and further to replace the word "also" with "additionally". The remaining grounds of rejection set forth below for claims 1-12 are the same as those set forth in the previous Office action mailed on 5 January 2010. For these reasons, the present action is properly made final.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 4 recites the limitation "the pressure drop" in the last line of the claim. There is insufficient antecedent basis for this limitation in the claim because base claim

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1 does not recite a pressure drop. It is noted that claim 4 was previously dependent upon claim 11 which does recite a pressure drop.

7. Claim 4 further recites the limitation “the second initiator is additionally added intermittently and/or continuously...” in the first two lines of the claim. The meaning of the word “additionally” as used here is ambiguous. In particular, it is unclear if the word “additionally” is meant to imply that both the first and the second initiators are added intermittently and/or continuously; or to imply that the second initiator is added in two different ways (once near the beginning of polymerization, per base claim 1, and additionally by an intermittent and/or continuous feed); or to simply imply that the second initiator is added intermittently and/or continuously at some point during the process. For examination purposes, the limitation is interpreted as the latter, that the second initiator is added intermittently and/or continuously at some point during the process.

Claim Rejections - 35 USC § 103

8. Claims 1-8, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 1995-082304 (herein “Amano”).

9. This rejection was adequately set forth in paragraphs 9-21 of the Office action mailed on 5 January 2010 and is incorporated here by reference.

10. With regard to claim 4: As was set forth in paragraph 21 of the Office action mailed on 5 January 2010, the second initiator is added continuously in the exemplary

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procedure in paragraph 21 of Amano, which is according to the present interpretation of claim 4 as set forth above in paragraph 7.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amano in view of US Patent No. 6,274,690 (herein "Hoshida").

12. This rejection was adequately set forth in paragraphs 9-21 and 24 of the Office action mailed on 5 January 2010 and is incorporated here by reference.

13. Claims 1-8 and 10-12 are rejected as being unpatentable over Amano in view of US Patent No. 6,384,155 (herein "Van Swieten"). A computer-generated English translation of Amano is referred to herein.

14. This rejection was adequately set forth in paragraphs 26-40 of the Office action mailed on 5 January 2010 and is incorporated here by reference.

15. With regard to claim 4: As was set forth in paragraph 39 of the Office action mailed on 5 January 2010, the second initiator is added continuously in the exemplary procedure in paragraph 21 of Amano, which is according to the present interpretation of claim 4 as set forth above in paragraph 7.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amano in view of Van Swieten and Hoshida.

17. This rejection was adequately set forth in paragraphs 26-40 and 43 of the Office action mailed on 5 January 2010 and is incorporated here by reference.

Response to Amendment

18. Applicant's amendment of claim 4 to change the base claim to claim 1, and to replace the word "also" with "additionally", is acknowledged; however, see paragraphs 6-7 above regarding these amendments.

Response to Arguments

19. Applicant's arguments filed 5 April 2010 (herein "Remarks") have been fully considered but they are not persuasive.

20. Regarding the rejection of claim 4 under 35 USC 112, second paragraph as indefinite: Applicant's amendment of claim 4 to replace the word "also" with "additionally" is acknowledged. However, the claim as presently amended is indefinite for the reasons set forth above in paragraphs 6-7.

21. Regarding the rejection of claims 1-8, 11, and 12 under 35 USC 103(a) as unpatentable over Amano: Applicant argues (first full paragraph on page 8 of Remarks) that Amano adds the second initiator once polymerization has reached 15% conversion, and further points to paragraph 11 of Amano with regard to the discussion about the relationship between heat dissipation from the reactor and the point at which the second initiator is added. While the examiner does not contest these statements regarding the

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content of the Amano reference, the cited differences between the present claims and the process of Amano merely establish that the reference is nonanticipatory. However, because the reference was relied upon for an obviousness rejection, the mere presence of a difference in point at which the second initiator is added is insufficient to overcome a determination of obviousness over Amano. In particular, a difference in the point at which the second initiator is added, and the need for improved heat dissipation, both of which are discussed in Amano, do not by themselves detract from a motivation to optimize these parameters.

22. Applicant further argues (the latter part of the same paragraph) that Amano adds 100% of the safely useable amount of the first initiator, and points to paragraph 4 of Amano. The examiner has considered paragraph 4 of Amano, but does not find therein support for Applicant's assertion that Amano adds 100% of the safely useable amount of the first initiator. However, Amano does teach a relationship between the addition of initiator and the resulting heat of reaction from polymerization. Therefore, *arguendo*, even if Applicant's assertion were correct, the disclosure by Amano of the addition of a certain amount of initiator would not detract from a motivation to optimize the amount of initiator. This is also to say that, because Amano teaches that the addition of initiator results in heat of reaction from polymerization, a person of ordinary skill would be motivated to optimize the amount of initiator; the presence of a difference between the amount of initiator added in Amano and the amount presently claimed would not detract from a person of ordinary skill's motivation to optimize the amount of initiator.

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23. Applicant further argues (first full paragraph on page 9 of Remarks) that the present invention results less defects such as fish-eyes than the process of Amano. While this may in fact be the case, Applicant has not provided any specific comparative evidence in support of this assertion (see MPEP 716.01(c)(II)). Therefore, no unexpected improvement in the number defects such as fish-eyes can be attributed to the present invention based on the current record. Applicant is invited to discuss with the examiner any potential experimental evidence prior to its submission to ensure that it is commensurate in scope with the claims and properly comparative with the prior art.

24. Regarding the rejection of claims 1-8 and 10-12 under 35 USC 103(a) as unpatentable over Amano in view of Van Swieten: Applicant argues (last paragraph on page 9 of Remarks) that Van Swieten teaches not to use the first initiator of Amano, and points to the paragraph bridging pages 2 and 3 of Van Swieten. The examiner has found no paragraph at this location, and therefore it appears that Applicant instead intended to refer to the paragraph at column 2 lines 5-17 of Van Swieten. It is noted from this paragraph that Van Swieten teaches that polymers produced with a more stable initiator may contain “unacceptable” amounts of residues from the initiators, and thereby show discoloration during processing. However, it is evident that the amount of these residues is subjective, in that a person of ordinary skill would determine what amount is unacceptable based on the intended use of the final polymer product. Amano similarly teaches that the amount of initiator is correlated with discoloration during processing (see the end of paragraph 16). Therefore, a person of ordinary skill would be

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motivated by both references to adjust the amount of initiator to achieve an amount of residue from the initiator which is acceptable for a given intended use of the polymer. The fact that Van Swieten teaches the same correlation between the amount of initiator and discoloration during processing as is taught in Amano does not teach away from the process of Amano, or detract from a person of ordinary skill's motivation to optimize the amount of initiators.

25. Applicant further argues (top of page 10 of Remarks) that adding the more reactive initiator of Amano earlier in the polymerization would result in an unsafe situation, and that faster heating up or addition of the second initiator within the first 15% of conversion is not permitted in the process of Amano. Applicant points to paragraphs 3 and 11 of Amano. It is firstly noted that paragraph 3 of Amano is a discussion of background information and problems which have occurred in the art. Amano teaches (see paragraph 4) that these problems are resolved by the disclosed invention, including using two initiators. Paragraph 11 of Amano teaches that the reflux condenser should be used in order to ensure sufficient cooling capacity and thereby avoid defects such as fish eyes in the polymer. While paragraph 11 teaches the need to control the addition of initiator based upon the cooling capacity, it does not appear to limit the process to addition of the more reactive initiator only after conversion has reached 15% as Applicant has argued. Rather, it appears to teach a requirement that the more reactive initiator not be added until the reflux condenser is in use, without any specific regard to the monomer conversion at the point the reflux condenser is started. While the addition of the more reactive initiator may produce an unsafe reaction if it is

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added without the use of a reflux condenser, Amano does not teach here that an unsafe situation would occur merely from the addition of the more reactive initiator prior to 15% conversion.

26. For these reasons, the rejections over Amano and Van Swieten have been maintained.

Conclusion

27. This action is properly final because Applicant's amendment necessitated some of the new ground(s) of rejection presented in this Office action, and because the remainder of the rejections are on the same grounds as set forth in the previous Office Action mailed on 5 January 2010. Accordingly, THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). See MPEP § 706.07(a).

28. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

29. This action is a final rejection and is intended to close the prosecution of this application. Applicant's reply under 37 CFR 1.113 to this action is limited either to an appeal to the Board of Patent Appeals and Interferences or to an amendment complying with the requirements set forth below.

30. If applicant should desire to appeal any rejection made by the examiner, a Notice of Appeal must be filed within the period for reply identifying the rejected claim or claims appealed. The Notice of Appeal must be accompanied by the required appeal fee.

31. If applicant should desire to file an amendment, entry of a proposed amendment after final rejection cannot be made as a matter of right unless it merely cancels claims or complies with a formal requirement made earlier. Amendments touching the merits of the application which otherwise might not be proper may be admitted upon a showing of good and sufficient reasons why they are necessary and why they were not presented earlier.

32. A reply under 37 CFR 1.113 to a final rejection must include the appeal from, or cancellation of, each rejected claim. The filing of an amendment after final rejection, whether or not it is entered, does not stop the running of the statutory period for reply to the final rejection unless the examiner holds the claims to be in condition for allowance. Accordingly, if a Notice of Appeal has not been filed properly within the period for reply, or any extension of this period obtained under either 37 CFR 1.136(a) or (b), the application will become abandoned.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD A. HUHNS whose telephone number is (571) 270-7345. The examiner can normally be reached on Monday to Friday, 9:30 AM to 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. A. H./
Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796